

Application No.: 10/803,225  
Docket No.: 200309561-1

### REMARKS

Applicants express appreciation to the Examiner for consideration of the subject patent application. This amendment is in response to the Office Action mailed July 3, 2007, in which all pending claims were rejected under 35 U.S.C. § 103(a) over a number of references. The specific rejections were as follows:

(1) Claims 1, 16, 17, and 22 were rejected as being unpatentable over European Patent No. 1,329,487 to Choy, et al. (hereinafter "Choy") in view of U.S. Patent No. 6,536,893 to Kowalski (hereinafter "Kowalski") and U.S. Patent No. 6,585,366 to Nagata et al. (hereinafter "Nagata").

(2) Claims 2, 10-13, and 18 were rejected as unpatentable over Choy in view of Kowalski and Nagata as applied to claims 1 and 17, further in view of U.S. Patent No. 6,492,222 to Kitamura et al. (hereinafter "Kitamura").

(3) Claims 3, 19, and 26 were rejected as unpatentable over Choy in view of Kowalski, Nagata, and Kitamura as applied to claims 2 and 18, and further in view of U.S. Patent No. 6,800,588 to Iwasaki et al. (hereinafter "Iwasaki").

(4) Claims 4, 5, 20, and 21 were rejected as unpatentable over Choy in view of Kowalski and Nagata as applied to claims 1 and 17 and further in view of U.S. Patent Publication No. 2002/0175983 of Ishikawa et al. (hereinafter "Ishikawa").

(5) Claims 6, 14, 15, 27, and 28 were rejected as unpatentable over Choy in view of Kowalski, Nagata, and Ishikawa as applied to claims 4, 5, 20, and 21, and further in view of U.S. Patent Publication No. 2003/0198885 of Tamagawa et al. (hereinafter "Tamagawa").

(6) Claim 29 was rejected as being unpatentable over Choy in view of Kowalski and Nagata as applied to claim 17, and further in view of Tamagawa.

(7) Claim 30 was rejected as unpatentable over Choy in view of Kowalski and Nagata as applied to claims 1 and 17 and further in view of the disclosure of Japanese Application No. 63178798 of Deguchi et al. (hereinafter "Deguchi").

It is respectfully submitted that the presently pending claims be reconsidered and allowed.

Application No.: 10/803,225  
Docket No.: 200309561-1

### Claim Rejections - 35 U.S.C. § 103

The Examiner has rejected all of the pending claims under 35 U.S.C. § 103(a) as being unpatentable over a number of combinations of prior art references. Before discussing each of the rejections in turn, Applicants deem it appropriate to briefly discuss what is required to sustain such a rejection.

To support a rejection under § 103(a), an Examiner assumes the burden of establishing a *prima facie* case for obviousness of the claimed invention in view of the prior art. In applying § 103(a) the following tenets of patent law must be adhered to: (a) the claimed invention must be considered as a whole; (b) the references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; (c) the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and (d) a reasonable expectation of success is the standard with which obviousness is determined. MPEP 2141.

It must be emphasized that the mere existence of claimed elements in various prior art references does not itself render the claimed arrangement of those elements obvious. To sustain a rejection for obviousness based on a combination of references, it is "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." *KSR Int'l Co. v Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007) (hereinafter "*KSR*"). In view of this background, Applicants submit that the present invention is patentable over the references cited by the Examiner. The rejections and the references upon which they are based are discussed in turn below.

The Examiner has rejected claims 1, 16, 17, and 22 as being unpatentable over Choy in view of Kowalski and Nagata. However, Applicants submit that the Examiner has not provided a reason why one skilled in the art would combine the elements as taught in the cited references. Choy teaches that printing on offset media with excellent quality and bleed control may be accomplished with inks comprising water-soluble colorants and at least one aprotic polar solvent. Not surprisingly, Choy does not teach the use of any device for applying heat and/or pressure to images so printed. As such, there is no apparent reason for one skilled in the art to look to a disclosure of a calendering device such as that in Kowalski. The use of such devices is usually taught to improve fastness properties of printed images on regular media, while Choy provides

Application No.: 10/803,225  
Docket No.: 200309561-1

high-quality printing on offset media. The Examiner has stated that it would be obvious for one skilled in the art to modify Choy with the calendering device of Kowalski because Kowalski teaches the advantages of smear fast and water fast images. However, that teaching alone does not indicate any advantage not already present in Choy—Choy already provides such images on offset media. Therefore, one skilled in the art would have no apparent reason to make such a modification.

The same arguments apply to Nagata, i.e. there would be no more reason to modify Choy with a calendering device in accordance with Nagata than to do so with the device already taught in Kowalski. Nagata teaches calendering as a means to prepare a printed substrate for effective lamination with a coat layer. According to the teaching in Nagata, it is the coat layer that provides the beneficial effect on print quality and durability, while the calendering process is only a means to facilitate even application of the layer to the substrate. The appropriateness of relying on a reference is based in part on its pertinence to the problem faced by the inventor. MPEP 2401.01(a). If anything, there would be less reason to combine Choy with Nagata, because the teaching therein is even less pertinent to the present invention.

Applicants further submit that the combination of these references is inappropriate because Kowalski teaches away from the claimed pressure and temperature ranges. Kowalski employs an ink composition that comprises a sublimation dye. It is known in the art, and specifically taught by Kowalski, that high temperatures are required to induce disperse dyes to diffuse into the substrate, the very purpose and objective of Kowalski's invention. This sublimation dye is of interest to Kowalski because it disintegrates and diffuses into the media at temperatures as low as about 200 degrees Celsius (column 2, lines 42-43). About 200 degrees Celsius is the low end of Kowalski's range. Any lower temperature would not fulfill the object of the invention. In the Office Action of July 3, 2007, the Examiner has additionally cited Nagata to provide the claimed pressure and temperature ranges. However, Applicants would point out that references are not combinable when one of them teaches away from the combination. MPEP 2145. Here, Kowalski explicitly teaches the necessity of temperatures of 200 degrees Celsius and above in order to realize the benefits of calendering on printed dye-based inks. Therefore, combining this reference with another disclosing a different range is not proper to support a *prima facie* case of obviousness. This is especially true in this case where, as

Application No.: 10/803,225  
Docket No.: 200309561-1

discussed above, Nagata also does not teach low-temperature calendering for directly altering the properties of a printed image. Rather, the calendering in Nagata serves only to facilitate application of a coat layer.

In view of these considerations, Applicants submit that these claims are patentable over the cited references, because no apparent reason has been identified for one skilled in the art to combine them in the manner of the present invention. Furthermore, they are not combinable because such a combination is taught away from in the art itself. Applicants therefore respectfully request that these rejections be withdrawn.

The Examiner has also rejected claims 2, 10-13, and 18 as unpatentable over Choy in view of Kowalski and Nagata as applied to claims 1 and 17, further in view of Kitamura. Applicants submit that, for the reasons discussed above, Choy, Kowalski, and Nagata are not combinable references under § 103 with regard to the present invention of claims 1 and 17. Therefore combining them with the Kitamura disclosure can not render obvious the further limitations recited in claims 2, 10-13, and 18 of the present invention. These limitations must be considered as a whole with the elements of the independent claims. Further, no apparent reason to combine Kitamura with the other references has been provided, as is required by KSR. This and the other rejections appear to be merely a hodgepodge of reference elements that have been brought together using the Applicants' disclosure as a roadmap, i.e. hindsight analysis. Applicants therefore request that these rejections be withdrawn.

The Examiner has also rejected claims 3, 19, and 26 as unpatentable over Choy in view of Kowalski, Nagata, and Kitamura as applied to claims 2 and 18, and further in view of Iwasaki. Applicants submit that, for the reasons discussed above, Choy, Kowalski, and Nagata are not combinable references under § 103 with regard to the present invention of claims 1 and 17, upon which claims 2 and 18 depend. Claim 3 adds further limitation to claim 2, as do claims 19 and 26 to claim 18. Therefore, as with claims 2 and 18, claims 3, 19, and 26 must be considered as a whole with the elements of independent claims 1 and 17. Applicants therefore request that these rejections be withdrawn.

The Examiner has also rejected claims 4, 5, 20, and 21 as unpatentable over Choy in view of Kowalski and Nagata as applied to claims 1 and 17 and further in view of the disclosure of Ishikawa. Applicants submit that, for the reasons discussed above, Choy, Kowalski, and Nagata

Application No.: 10/803,225  
Docket No.: 200309561-1

are not combinable references under § 103 with regard to the present invention of claims 1 and 17, and that this 4 reference rejection is based on hindsight. Applicants therefore request that these rejections be withdrawn.

The Examiner has rejected claims 6, 14, 15, 27, and 28 as unpatentable over Choy in view of Kowalski, Nagata, and Ishikawa as applied to claims 4, 5, 20, and 21 and further in view of the disclosure of Tamagawa. Applicants submit that, for the reasons stated above, Choy, Kowalski, and Nagata are not combinable references under § 103 with regard to the present invention of claims 1 and 17, upon which claims 4, 5, 20, and 21 depend. As with these claims, the limitations in claims 6, 14, 15, 27, and 28 must be considered as a whole with the elements of independent claims 1 and 17. Applicants therefore request that these rejections be withdrawn.

The Examiner has also rejected claim 29 as being unpatentable over Choy in view of Kowalski and Nagata as applied to claim 17, and further in view of Tamagawa. For the reasons stated above, Choy, Kowalski, and Nagata are not combinable references under § 103 with regard to present claim 17. The limitation in claim 29, as it depends from claim 17, must be considered as a whole with the elements of claim 17. Therefore an inquiry into the nonobviousness of claim 29 is not thought necessary in view of the responsive discussion related to claim 17. Applicants therefore request that these rejections be withdrawn.

The Examiner has also rejected claim 30 as unpatentable over Choy in view of Kowalski and Nagata as applied to claims 1 and 17 and further in view of the disclosure of Deguchi. The limitations in this claim must be considered as a whole with the elements of claim 17. Applicants submit that, for the reasons discussed above, Choy, Kowalski, and Nagata are not combinable references under § 103 with regard to present claim 17. Therefore, combining the Deguchi disclosure with Choy and Kowalski, if this were possible, could not render obvious the further limitation recited in claim 29. Applicants therefore request that these rejections be withdrawn.

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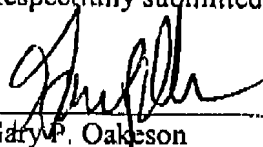
Application No.: 10/803,225  
Docket No.: 200309561-1CONCLUSION

In light of the above, Applicants respectfully submit that pending claims are in condition for allowance. Therefore, Applicants request that the rejections and objections be withdrawn, and that the claims be allowed and passed to issue. If any impediment to the allowance of these claims remains after entry of this Amendment, the Examiner is encouraged to call the undersigned so that such matters may be resolved as expeditiously as possible.

The Commissioner is hereby authorized to charge any additional fee or to credit any overpayment in connection with this Amendment to Deposit Account No. 08-2025.

DATED this 20<sup>th</sup> day of September, 2007.

Respectfully submitted,



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